

# CHAOS AND SCALING LAWS IN THE SOLAR WIND

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New interesting insights in the theory of turbulence derive from the point of view which considers a turbulent flow as a complex system, a sort of benchmark for the theory of dynamical systems. In the past decade or so, turbulence in the solar wind has been used as a large wind tunnel to investigate scaling laws of turbulent fluctuations, multifractals models, etc. A large amount of in-situ observations from several s/c, located at different heliocentric radial distances and latitudes, provided a rather complete picture of the phenomenology that characterizes the interplanetary MHD turbulence. Moreover, comparative studies highlighted similarities and discrepancies between hydrodynamic and magnetohydrodynamic turbulence. As a matter of fact, the presence of a background magnetic field introduces a symmetry breaking in the interplanetary space and plays a major role in the evolution of the turbulence itself. This presentation aims to provide an overview about the main features of solar wind turbulence in the frame of dynamical systems approach.